CLAIMS:

1. An automotive protective device comprising a woven or non-woven textile substrate having an adhesive prime coat polyurethane layer coated on at least one surface thereof and a solid polymeric film laminated thereto.

2. The automotive protective device of claim 1 wherein said textile substrate is a nylon, polyester or other synthetic fiber.

3. The automotive protective device of claim 2 wherein said solid polymeric film laminate is a polyamide, polyolefin, polyether, polyester, polycarbonate or polyurethane film.

4. The automotive protective device of claim 2 wherein said textile substrate is a woven nylon, polyester, or other synthetic fiber.

5. The automotive protective device of claim 4 wherein said textile substrate is woven nylon.

6. The automotive protective device of claim 5 wherein said adhesive prime coat polyurethane layer is a composition comprising a polycarbonate-based aliphatic polyurethane and an isocyanate.

7. The automotive protective device of claim 5 wherein said adhesive prime coat polyurethane layer is a composition comprising: a polycarbonate-based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

8. The automotive protective device of claim 6 wherein said adhesive prime coat polyurethane layer has a coating weight of from about 0.25 ounces per square yard to about 2.5 ounces per square yard.

9. The automotive protective device of claim 6 wherein said adhesive prime coat polyurethane layer has a coating weight of about 1.2 ounces per square yard.

10. The automotive protective device of claim 6 wherein said adhesive prime coat polyurethane layer has a solids content of from about 25% to about 45%.

11. The automotive protective device of claim 6 wherein said solid polymeric film laminate has a thickness of from about 0.2 mils to about 5.0 mils.

12. The automotive protective device of claim 6 wherein said solid polymeric film laminate has a thickness of from about 0.5 mils to about 1.0 mils.

13. A method of manufacturing an automotive protective device which comprises:

a) coating the surface of a woven or non-woven textile substrate with a prime coat adhesive polyurethane layer comprising: a polycarbonate-based aliphatic polyurethane and an isocyanate; and

b) laminating a solid polymeric film to said prime-coated surface of said textile substrate.

14. A method of manufacturing an automotive protective device which comprises:

a) coating the surface of a woven or non-woven textile substrate with a prime coat adhesive composition comprising: a polycarbonate-based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

15. The method of claim 14 wherein said textile substrate is woven nylon, polyester or other synthetic fiber.

16. A method of manufacturing an automotive protective device which comprises:

a) taking a one-piece woven textile substrate comprising a nylon, polyester, or other synthetic fiber having two outer surfaces and pre-configured air holding cavities therein;

b) coating each of said outer surfaces of said textile substrate with an adhesive polyurethane prime coat layer comprising: a polycarbonate-based aliphatic polyurethane and an isocyanate; and

c) laminating a solid polymeric film to each of said outer surfaces of said textile substrate.

17. The method of claim 16 wherein said adhesive polyurethane prime coat layer is a composition comprising: a polycarbonate-based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

18. The method of claim 16 wherein said woven textile substrate is nylon.

19. The method of claim 16 wherein said solid polymeric film laminate is a polyamide, polyolefin, polyester, polyether, polycarbonate or polyurethane film.

20. The method of claim 16 wherein said solid polymeric film is laminated sequentially on said outer surfaces.

21. The method of claim 16 wherein said polymeric film lamination takes place at a temperature of from about 275° F. to about 450° F. and at a pressure of from about 200 psi to about 1000 psi.

22. The method of claim 21 wherein said polymeric film lamination takes place at a temperature of about 400° F. and at a pressure of from about 500 psi to about 600 psi.

23. A composite sealing and air holding laminating film for use in the manufacture of an automotive protective device with a woven or non-woven textile substrate, said composite laminating film comprising a solid polymeric carrier film and a layer of adhesive prime coat polyurethane coated thereon.

24. The composite sealing and air holding laminating film of claim 23 wherein said solid polymeric carrier film is a polyamide, polyolefin, polyester, polyether, polycarbonate or polyurethane film.

25. The composite sealing and air holding laminating film of claim 23 wherein said adhesive prime coat polyurethane layer comprises: a polycarbonate- based aliphatic polyurethane and an isocyanate.

26. The composite sealing and air holding laminating film of claim 23 wherein said adhesive prime coat polyurethane layer is a composition comprising: a polycarbonate- based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

27. The composite sealing and air holding laminating film of claim 23 wherein said adhesive prime coat polyurethane layer has a thickness of from about 0.5 mils to about 5.0 mils.

28. The composite sealing and air holding laminating film of claim 23 wherein said adhesive prime coat polyurethane layer has a thickness of from about 1.0 mils to about 1.5 mils.

29. The composite sealing and air holding laminating film of claim 23 wherein said adhesive prime coat polyurethane layer has a solids content of from about 25% to about 45%.

30. The composite sealing and air holding laminating film of claim 23 wherein said solid polymeric carrier film has a thickness of from about 0.2 mils to about 5.0 mils.

31. The composite sealing and air holding laminating film of claim 23 wherein said solid polymeric carrier film has a thickness of from about 0.5 mils to about 1.0 mils.

32. A method of making a composite sealing and air holding laminating film for use in the manufacture of an automotive protective device which comprises:

a) forming a carrier film layer by casting a solution of polyester, polyamide, polyether, polyester, polycarbonate or aliphatic or aromatic polyether polyurethane or polyester polyurethane and a solvent onto a release paper;

b) solidifying said carrier film layer by heating to evaporate said solvent;

c) coating an adhesive prime coat polyurethane layer onto said polymeric carrier film;

d) heating to dry said adhesive prime coat polyurethane material; and

e) stripping said composite laminating film from said release paper.

33. The method of claim 32 wherein said adhesive polyurethane prime coat layer comprises: a polycarbonate-based aliphatic polyurethane and an isocyanate.

34. The method of claim 32 wherein said adhesive polyurethane prime coat layer comprises: a polycarbonate-based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

35. The method of claim 32 wherein said polymeric carrier film layer has a thickness of from about 0.2 mils to about 5.0 mils.

36. The method of claim 32 wherein said polymeric carrier film layer has a thickness of from about 0.5 mils to about 1.0 mils.

37. The method of claim 32 wherein said adhesive prime coat polyurethane layer has a thickness of from about 0.5 mils to about 5.0 mils.

38. The method of claim 32 wherein said adhesive prime coat polyurethane layer has a thickness of from about 1.0 mils to about 1.5 mils.

39. An automotive protective device comprising a one-piece woven textile substrate having two outer surfaces and pre-configured air holding cavities woven therein, each of said outer surfaces having an adhesive polycarbonate-based aliphatic polyurethane prime coat layer and a solid polymeric film laminated to each of the outer surfaces of said woven textile substrate.

40. The automotive protective device of claim 39 wherein said woven textile substrate is a nylon, polyester or other synthetic fiber.

41. The automotive protective device of claim 39 wherein said solid polymeric film laminate is a polyamide, polyolefin, polyester, polyether, polycarbonate or polyurethane film.

42. The automotive protective device of claim 39 wherein said textile substrate is woven nylon.

43. The automotive protective device of claim 39 wherein said adhesive polyurethane prime coat layer comprises: a polycarbonate-based aliphatic polyurethane; a polyester or polyether-based aliphatic polyurethane, or copolymer blends of ethylene vinyl acetate; and an isocyanate.

44. The automotive protective device of claim 43 wherein said adhesive prime coat polyurethane coating layer has a thickness of from about 0.5 mils to about 5.0 mils.

45. The automotive protective device of claim 43 wherein said adhesive prime coat polyurethane coating layer has a thickness of from about 1.0 mils to about 1.5 mils.

46. The automotive protective device of claim 43 wherein said adhesive prime coat polyurethane coating layer has a solids content of from about 25% to about 45%.

47. The automotive protective device of claim 43 wherein said polymeric film laminate has a thickness of from about 0.2 mils to about 5.0 mils.

48. The automotive protective device of claim 43 wherein said polymeric film laminate has a thickness of from about 0.5 mils to about 1.0 mils.